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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/088,619	07/19/2002	Rudolf Pollner	2056	5502

7590 02/20/2004

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EXAMINER

LEURIG, SHARLENE L

ART UNIT PAPER NUMBER

2879

DATE MAILED: 02/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/088,619

Applicant(s)

POLLNER, RUDOLF

Examiner

Sharlene Leurig

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-32 and 34-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 23-32 and 34-44 is/are allowed.
- 6) ☒ Claim(s) 45 and 46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☒ Interview Summary (PTO-413) Paper No(s) 0104
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

DETAILED ACTION

Response to Amendment

1. The supplemental amendment filed on January 29, 2004 has been entered and acknowledged by the examiner. Claims 23-32 and 34-44 have been amended, claims 1-22 and 33 have been cancelled and claims 45 and 46 have been added.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claims 45 and 46 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims contain the limitation of the metallic phase of the cermet constituting "a quantity of 10 and 15 % by volume". It is unclear whether the claim limitation means that the cermet comprises a metallic phase that makes up between 10 and 15 % by volume, and further it is unclear whether the percentage is in reference to the volume of the cermet or of the entire spark plug, or of some other arbitrary index.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 45 and 46 are rejected under 35 U.S.C. 102(b) as being anticipated by Nishikawa (6,160,342)).

Regarding claim 45, Nishikawa discloses a spark plug comprising a shell (Figure 1, element 1), an insulator (2) located in the shell and composed of a sintered ceramic material, a center electrode (3) heat-fused in an insulator, and a terminal stud (13) that have an electrically conductive connection with each other and are located in the insulator. A cermet (15) abuts the center electrode (3), and the ceramic phase of the cermet, which is made of alumina (column 5, line 26) is composed of the same material as the insulator, which is made of alumina (column 15, line 35). The metallic phase of the cermet is composed of a material having good electrical conductivity (column 10, lines 45). The cermet (15) is disposed between the center electrode (3) and the terminal stud (13). The metallic phase of the cermet constitutes a quantity of between 5 and 50 percent by volume (column 10, lines 58-64), which encompasses the claimed range of 10-15 percent by volume.

Regarding claim 46, Nishikawa discloses a method for producing a spark plug the involves pressing a ceramic material to form an insulator (column 18, line 1) provided with a location hole (Figure 1, element 6) for a center electrode, inserting a center electrode in the location hole (column 18, line 10), providing a cermet (15) between the center electrode and a terminal stud of the insulator (column 18, line 17), filling and compacting a ceramic granulated material in the insulator (column 18, line 17), wherein granules of the granulated material are provided with a coating of a

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material having good electric conductivity (Figure 4) in the insulator and compacted, sintering the insulator (column 18, line 1), and providing a metallic phase of the cermet with a quantity of between 10 and 15% by volume (column 10, lines 58-64).

Response to Arguments

6. Applicant's arguments, see Supplemental Amendment, filed January 29, 2004, with respect to claims 23-32 and 34-44 have been fully considered and are persuasive. The rejection of claims 23-32 and 34-44 has been withdrawn.

7. Applicant's arguments with respect to claims 45 and 46 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

8. Claims 23-32 and 34-44 are allowed.

9. The following is an examiner's statement of reasons for allowance: the prior art of record fails to teach or suggest the combination of limitations as set forth in claims 23 and 34, and specifically comprising the limitation of a spark plug or a method of making a spark plug wherein the spark plug has a cermet formed between the center electrode and the terminal stud in addition to a burn-off resistor comprising carbon which is located in the interior of the insulator.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharlene Leurig whose telephone number is (571) 272-2455. The examiner can normally be reached on Monday through Friday, 8:30am-5:00pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

Sharlene Leurig



VIP PATEL
PRIMARY EXAMINER